

ABSTRACT

An IPS (in-plane switching) liquid crystal display (2) has a first substrate (23), a second substrate (24) opposite to the first substrate, a liquid crystal layer disposed between the two substrates, a plurality of common electrodes (25) and pixel electrodes (26) disposed on the second substrate, and a plurality of spacers (29) disposed on the common electrodes and the pixel electrodes. The spacers are electrically conductive. The liquid crystal layer, together with the electric field generators comprising the electrodes and the spacers connected with them, cooperatively form a “functionally unified” configuration. Accordingly, liquid crystal molecules (27) in the liquid crystal layer are in a strong electric field having a highly uniform direction. The strong electric field enables the IPS type liquid crystal display to operate on a lower driving voltage, and/or to provide more space between the electrodes to yield a higher aperture ratio.